

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (canceled):

2. (currently amended):): ~~The gas-tightness diagnosing apparatus as claimed in claim 1~~
A gas-tightness diagnosing apparatus comprising:

a fuel tank;

an evaporative emission purge system having a canister, for temporarily adsorbing fuel vapors created in the fuel tank by the canister and for purging the fuel vapors from the canister to an air intake portion of an internal combustion engine under a predetermined engine operating condition;

a pressurizing device that raises an internal pressure in the fuel tank and in the evaporative emission purge system;

a pressure sensor that detects the internal pressure;

a diagnosing device that diagnoses a gas-tightness of the fuel tank and of the evaporative emission purge system based on a change in the internal pressure; and

the pressurizing device being mounted in the fuel tank,

wherein:

the pressurizing device is mounted in a blistered portion of the fuel tank.

3. (original): The gas-tightness diagnosing apparatus as claimed in claim 2, wherein:
the blistered portion, which accommodates therein the pressurizing device, is defined in either one of a side wall, an upper panel, and a bottom panel of the fuel tank.

4. (currently amended):): ~~The gas-tightness diagnosing apparatus as claimed in claim 1~~
A gas-tightness diagnosing apparatus comprising:

a fuel tank;

an evaporative emission purge system having a canister, for temporarily adsorbing fuel vapors created in the fuel tank by the canister and for purging the fuel vapors from the canister to an air intake portion of an internal combustion engine under a predetermined engine operating condition;

a pressurizing device that raises an internal pressure in the fuel tank and in the evaporative emission purge system;

a pressure sensor that detects the internal pressure;

a diagnosing device that diagnoses a gas-tightness of the fuel tank and of the evaporative emission purge system based on a change in the internal pressure; and

the pressurizing device being mounted in the fuel tank,

wherein:

the pressurizing device comprises:

(i) an inlet pipe; and

(ii) an air pump mounted in the fuel tank and having an air outlet that is directly opened to an interior space of the fuel tank and an air inlet that is opened to an exterior space of the fuel tank through the inlet pipe, while defining a shorter axial length of a protruded portion of the inlet pipe, outwardly extending from an outer peripheral wall surface of the fuel tank.

5. (currently amended): ~~The gas-tightness diagnosing apparatus as claimed in claim 1~~
A gas-tightness diagnosing apparatus comprising:

a fuel tank;

an evaporative emission purge system having a canister, for temporarily adsorbing fuel vapors created in the fuel tank by the canister and for purging the fuel vapors from the canister to an air intake portion of an internal combustion engine under a predetermined engine operating condition;

a pressurizing device that raises an internal pressure in the fuel tank and in the evaporative emission purge system;

a pressure sensor that detects the internal pressure;

a diagnosing device that diagnoses a gas-tightness of the fuel tank and of the evaporative emission purge system based on a change in the internal pressure; and

the pressurizing device being mounted in the fuel tank,

wherein:

the fuel tank is made of a resin tank formed with a blistered portion in which the pressurizing device is mounted, the blistered portion being dimensioned to fill a dead space defined around the fuel tank, while defining a larger volumetric capacity of the fuel tank.

6. (currently amended): A gas-tightness diagnosing apparatus comprising:
a fuel tank;

evaporative emission purge means for capturing fuel vapors created in the fuel tank, for temporarily storing the fuel vapors and for purging the fuel vapors to an air intake portion of an internal combustion engine under a predetermined engine operating condition;

pressurizing means for raising an internal pressure in the fuel tank and in the evaporative emission purge means;

pressure sensing means for detecting the internal pressure;

diagnostic means for diagnosing a gas-tightness of the fuel tank and of the evaporative emission purge means based on a change in the internal pressure; and

pressurizing means being mounted in the fuel tank and mounted in a blistered portion of the fuel tank.

7. (canceled):

8. (currently amended): ~~The gas-tightness diagnosing apparatus as claimed in claim 7~~ A gas-tightness diagnosing apparatus comprising:

a sealed fuel tank that stores therein volatile fuel;

an evaporative emission purge system having a canister, for temporarily adsorbing fuel vapors created in the sealed fuel tank by the canister and for purging the fuel vapors from the canister to an air intake portion of an internal combustion engine under a predetermined engine operating condition;

a pressurizing device that raises an internal pressure in the sealed fuel tank and in the evaporative emission purge system under a condition that the evaporative emission purge system is cut off from the air intake portion;

a pressure sensor that detects the internal pressure;
a diagnosing device that diagnoses a gas-tightness of the sealed fuel tank and of the
evaporative emission purge system based on a change in the internal pressure; and
the pressurizing device being mounted in the sealed fuel tank, wherein[:]
the pressurizing device is mounted in a blistered portion of the sealed fuel tank.

9. (original): The gas-tightness diagnosing apparatus as claimed in claim 8, wherein:
the blistered portion, which accommodates therein the pressurizing device, is defined in
either one of a side wall, an upper panel, and a bottom panel of the sealed fuel tank.

10. (currently amended): ~~The gas-tightness diagnosing apparatus as claimed in claim 7~~ A
gas-tightness diagnosing apparatus comprising:

a sealed fuel tank that stores therein volatile fuel;
an evaporative emission purge system having a canister, for temporarily adsorbing fuel
vapors created in the sealed fuel tank by the canister and for purging the fuel vapors from the
canister to an air intake portion of an internal combustion engine under a predetermined engine
operating condition;

a pressurizing device that raises an internal pressure in the sealed fuel tank and in the
evaporative emission purge system under a condition that the evaporative emission purge system
is cut off from the air intake portion;

a pressure sensor that detects the internal pressure;
a diagnosing device that diagnoses a gas-tightness of the sealed fuel tank and of the
evaporative emission purge system based on a change in the internal pressure; and

the pressurizing device being mounted in the sealed fuel tank, wherein[:]

the pressurizing device comprises:

- (i) an inlet pipe; and
- (ii) an air pump mounted in the sealed fuel tank and having an air outlet that is directly
opened to an interior space of the sealed fuel tank and an air inlet that is opened to an exterior
space of the sealed fuel tank through the inlet pipe, while defining a shorter axial length of a

protruded portion of the inlet pipe, outwardly extending from an outer peripheral wall surface of the sealed fuel tank.

11. (currently amended): ~~The gas-tightness diagnosing apparatus as claimed in claim 7~~ A gas-tightness diagnosing apparatus comprising:

a sealed fuel tank that stores therein volatile fuel;

an evaporative emission purge system having a canister, for temporarily adsorbing fuel vapors created in the sealed fuel tank by the canister and for purging the fuel vapors from the canister to an air intake portion of an internal combustion engine under a predetermined engine operating condition;

a pressurizing device that raises an internal pressure in the sealed fuel tank and in the evaporative emission purge system under a condition that the evaporative emission purge system is cut off from the air intake portion;

a pressure sensor that detects the internal pressure;

a diagnosing device that diagnoses a gas-tightness of the sealed fuel tank and of the evaporative emission purge system based on a change in the internal pressure; and

the pressurizing device being mounted in the sealed fuel tank, wherein[:]

the sealed fuel tank is made of a resin tank formed with a blistered portion in which the pressurizing device is mounted, the blistered portion being dimensioned to fill a dead space defined around the sealed fuel tank, while defining a larger volumetric capacity of the sealed fuel tank.

12. (currently amended): A gas-tightness diagnosing apparatus comprising:

a sealed fuel tank that stores therein volatile fuel;

evaporative emission purge system having a canister, for temporarily adsorbing fuel vapors created in the sealed fuel tank by the canister and for purging the fuel vapors from the canister to an air intake portion of an internal combustion engine under a predetermined engine operating condition;

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pressurizing means for raising an internal pressure in the sealed fuel tank and in the evaporative emission purge system under a condition that the evaporative emission purge system is cut off from the air intake portion;

pressure sensing means for detecting the internal pressure;

diagnostic means for diagnosing a gas-tightness of the sealed fuel tank and of the evaporative emission purge system based on a change in the internal pressure; and

the pressurizing means being mounted in the sealed fuel tank and mounted in a blistered portion of the sealed fuel tank.

13. – 18 are cancelled